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ABSTRACT

This booklet briefly describes occupational opportunities in engineering in the Environmental Protection Agency (EPA). Section headings are: "Preserving Our Future Today"; "Introduction to EPA..."; "Setting Standards"; "Enforcement and Monitoring"; "Trends for the Future"; "Job Requirements"; "A Day in the Life of..."; "Geographic Locations"; "Environmental References"; "Opportunities in Engineering"; "Job Titles and Duties"; "How to Apply for Engineering Positions"; and "EPA Human Resources Offices." (MKR)

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OUR WORKFORCE AT EPA IS ONE OF GREAT

DIVERSITY. WHATEVER YOUR OCCUPATION, YOUR

INVOLVEMENT IS IMPORTANT AND NECESSARY,

AND YOUR EFFORTS ESSENTIAL TO FULFILLING

THE MISSION OF THE UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY.

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PRESERVING OUR FUTURE TODAY

In 1974, the Safe Drinking Water Act (SDWA) authorized EPA to establish regulations to limit the amount of various substances in water used for drinking.

The 1987 Clean Water Act amendments require certain industries to "pretreat" their wastewater so that toxic chemicals and other harmful substances do not enter sewage systems that were not designed to treat them.

The new Clean Air Act contains provisions for large reductions in emissions of sulfur dioxide and nitrogen oxides to combat acid rain. The new national goal for year 2000 is to reduce SO_2 emissions nationwide by 10 million tons.

The Resource Conservation and Recovery Act regulates hazardous waste from over 200,000 generators, through transportation, storage and treatment to final disposal. Hazardous waste handlers must now clean up contamination resulting from past waste management practices as well as from current activities.

Work is underway to reduce municipal solid waste through a combination of source reduction and recycling measures.

The 1990 Farm Bill could further reduce agricultural pesticide use and enhance environmental quality. This includes promoting more environmentally sound crop rotation practices, promoting research and education, and providing incentives for farmers to adopt more environmentally sound habits.

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INTRODUCTION TO EPA. . .

We're a dynamic team of diverse people dedicated to improving and preserving the quality of the environment. ❧ The United States Environmental Protection Agency (EPA) was founded in December 1970 to consolidate the government's environmental regulatory activities into a single agency. Over the past 20 years, EPA has greatly expanded its scope and responsibilities in meeting environmental challenges. ❧ Located in Washington, D.C., EPA headquarters is divided into twelve offices: Office of the Administrator; Office of Water; Office of Solid Waste and Emergency Response; Office of Air and Radiation; Office of Prevention, Pesticides and Toxic Substances; Office of Research and Development; Office of Administration and Resources Management; Office of Enforcement; Office of General Counsel; Office of Policy, Planning and Evaluation; Office of International Activities; Office of Inspector General. These offices develop environmental policies, set standards, manage complex research and development programs, and develop regulations for pesticides, toxic substances, hazardous wastes, air, radiation and water. In addition, every EPA program office is developing new technologies designed to prevent pollution. ❧ There are also ten Regional Offices which administer EPA programs and provide technical assistance to state, local and tribal governments. World-class research and development in all the environmental disciplines is carried out in our 20 research facilities. ❧ At last count, EPA employed almost 19,000 and the numbers continue to grow.

Treatment and disposal of waste are not enough; pollutants must be prevented from being generated in the first place. We have learned the inherent limitations of treating and burning waste. A problem solved in one part of the environment may become a new problem in another part. We must curtail pollution closer to its point of origin so that it is not transferred from place to place.

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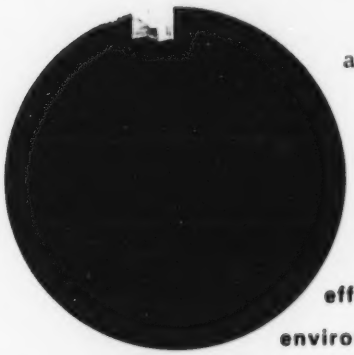
SETTING STANDARDS

EPA is responsible for setting standards that help protect the public's health and welfare. Whether this involves restricting pesticide use or setting emission levels for automobiles, EPA is taking steps to ensure a cleaner future.

ENFORCEMENT AND MONITORING

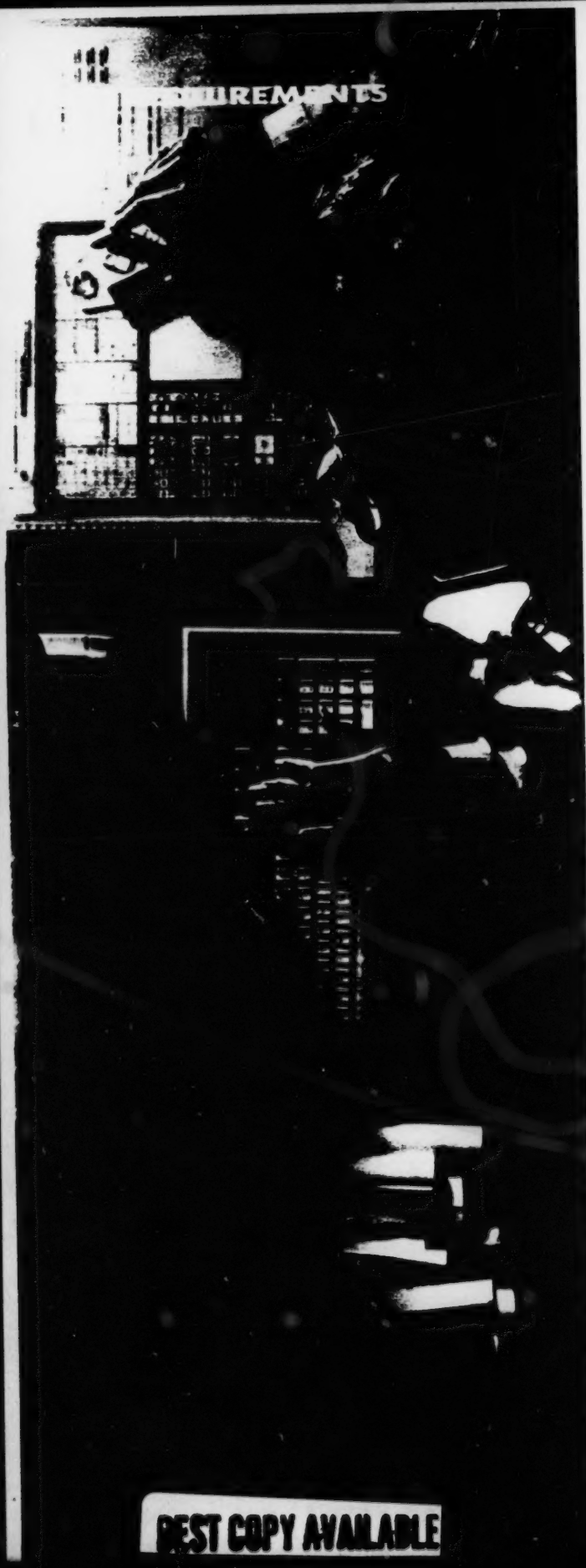
The Agency's philosophy has been to encourage voluntary compliance by private industry and communities, and ensure that state, local and tribal governments perform enforcement activities necessary to meet EPA standards.

Various types of monitoring processes and activities exist within EPA. Some are broadly based monitoring programs that determine whether pollution levels and emissions are increasing or decreasing. Other methods of evaluation determine if the various abatement programs developed by EPA and state and local governments are as effective as they should be.



TRENDS FOR THE FUTURE

EPA's 20 year efforts toward a cleaner environment and improved human health have been vigorous. Worldwide, the belief that industry cannot endure the restrictions of environmental controls, is being replaced by an awareness of industry's role in nurturing the environment. Protecting the planet is a huge commitment and to be successful it will take everyone working together. Complementing EPA's efforts have been state, tribal and local governments, citizen's environmental organizations, and countless individuals, many of whom have been working on pollution control for years. EPA has developed five new themes which reflect future directions for ensuring a cleaner environment: pollution prevention, voluntary action, reducing risks, economic incentives, protecting natural resources. It's time to develop a new pattern of environmental management — working with nature.



Most jobs at EPA are in the competitive service, which means that applicants compete with other candidates and must be evaluated through a system which reviews the candidates skills, knowledge and abilities in relation to a specific job vacancy. In order to be considered for any engineering positions you must hold a minimum of a bachelor's degree in a related engineering discipline. While a growing number of EPA employees hold Environmental Engineering degrees, the vast majority with the environmental engineer job title hold degrees in civil, chemical, mechanical or petroleum engineering.

A special pay schedule exists for all engineering positions in General Schedule grades 5 through 12. EPA has also developed an accelerated promotion program for engineers who are just beginning their EPA careers. For engineering positions send your application directly to an EPA Human Resources Office in the geographic location you wish to apply.

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A DAY IN THE LIFE OF . . .

Hyuna ▲ "I'm an environmental engineer for the Office of Air and Radiation. Since I joined EPA five years ago, I've had two entirely different positions. When I first began, I was considered a research engineer and my primary mission was to analyze source reports of air pollution for further regulatory action. This past year I moved to the Office of Water to work on project grants for the Water Pollution Control Federation, making recommendations on which projects to fund and monitoring projects in process. ▲ The best part about working for EPA is that you can actually plot out your career path — which is pretty difficult when you work for the private sector. ▲ I'm the kind of person who likes to plan every step of my career, so this is an outstanding benefit. You don't have to leave the Agency to find growth positions. ▲ The most important advice I can give someone interested in working for EPA is to make sure your communication skills, both written and verbal are polished."

"Hi, my name is Donald and I'm an engineer in Region 2, New York City. My position is to oversee administration of requirements for municipal waste-water plant discharges. My function is to act as an advisor to a variety of state people, which I find very satisfying. ▲ I've lived in New York all my life, but I now see my state through different eyes. I'll be thankful when there are enough resources, concerned organi- zations, and people to clean up places like the Big Apple. ▲ Working for EPA has increased my environmental awareness more than anything else. I didn't originally get my degree in engineering to do environmental work, but I couldn't have gotten into a more rewarding career."

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GEOGRAPHIC LOCATIONS

EPA headquarters is located in Washington, D.C., one of the country's most culturally-rich areas. Although one-third of EPA's positions are in our nation's capital, we hire engineers at all ten Regional Headquarters and Field Offices. The Regional Offices are located in major cities throughout the U.S. with Field Offices and labs located in areas that geographically and environmentally enhance each lab's mission.

ENVIRONMENTAL REFERENCE

The following publications can provide you with more information on environmental careers.

Newsletters

Environmental Opportunities
Box 670
Walpole, NH 03608

Job Scan
The Student Conservation Assn., Inc.
P.O. Box 550
Charleston, NH 03603

The Job Seeker
Rt. 2, Box 16
Warrens, WI 54666

The Nature People Career Services
P.O. Box 98
Warrens, WI 54666

Environmental Careers
Circulation Dept.
760 Whalers Way, Suite 100-A
Fort Collins, CO 80525

Periodicals

Resource Recycling
P.O. Box 10540
Portland, OR 97210-9893

Biocycle
Journal of Waste Recycling
Emmaus, PA 18049

Buzzworm
P.O. Box 6853
Syracuse, NY 13217-7930

E: The Environmental Magazine
P.O. Box 6667
Syracuse, NY 13217-7934

Garbage
P.O. Box 51647
Boulder, CO 80321-1647

Friends of the Earth
218 D Street, SE
Washington DC 20003
202 544-2600

World Watch
P.O. Box 6991
Syracuse, NY 13217-9942

Books

The Complete Guide to Environmental Careers
Island Press
Box 7, Dept. 4CC
Covelo, CA 95428

EPA does not necessarily endorse these publications. This list is provided as a sample of available information.

OPPORTUNITIES IN ENGINEERING

The importance of engineering in addressing and solving problems we face in meeting environmental challenges cannot be overstated. Engineers are vital to understanding the movement of pollutants, designing pollution prevention techniques, establishing important thresholds through research and evaluating specific environmental risks. Engineers represent 16 percent of the total workforce at EPA. If you are an experienced engineer looking to turn your talents toward helping the environment through public service, there are a growing number of opportunities. Write or call any EPA Human Resources Office for information on available vacancies.

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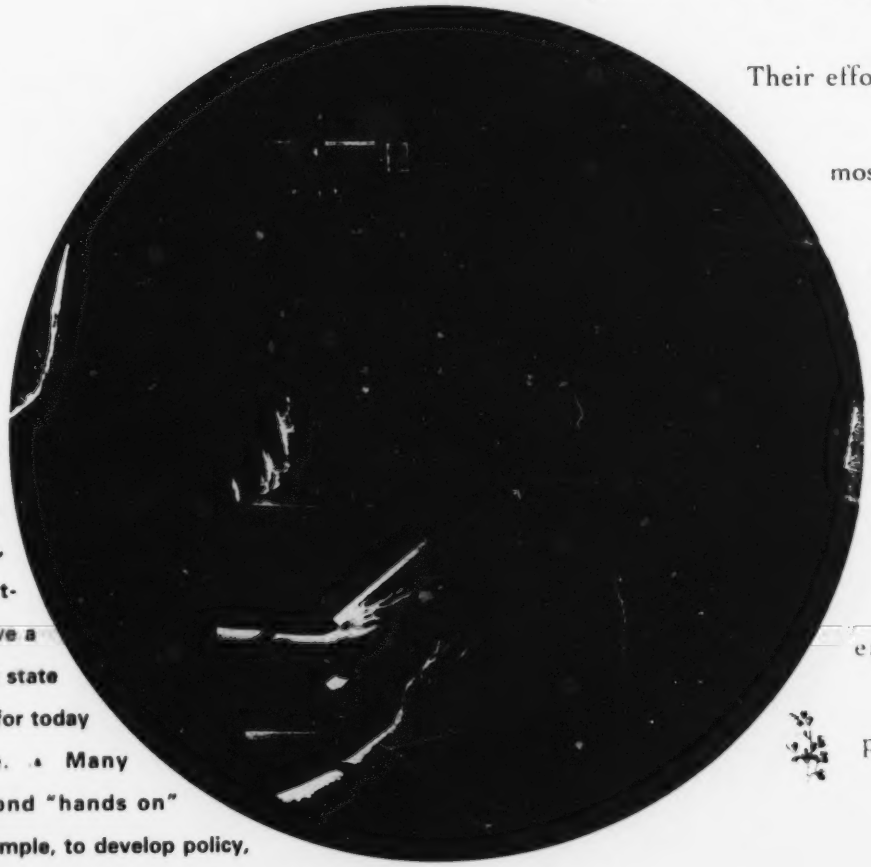
JOB TITLES AND DUTIES

EPA hires hundreds of engineers each year. Individuals from all of the engineering disciplines are employed in the occupational category of environmental engineer. We also hire individuals for specific positions as chemical engineers, mechanical engineers, and civil engineers, but in relatively smaller numbers. Their efforts to provide the most up-to-date information is essential to fulfilling the Agency's mission to protect the environment and public health.



EPA engineers, whether involved in research or policy, can enjoy contributing to plans that have a direct impact on the state of the environment for today and for the future. Many engineers go beyond "hands on" engineering, for example, to develop policy, write and administer regulations, and issue permits. Others are experts in pollution technologies, acting as advisors to private industry, the public, EPA offices and other governments. Others work in conjunction with enforcement and compliance programs.

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HOW TO APPLY FOR ENGINEERING POSITIONS

We are looking for highly motivated people — hard workers and self-starters willing to persevere in any task undertaken. Whether you are applying for entry-level, mid-level or senior positions you will need to complete an Application for Federal Employment (Standard Form 171) and provide appropriate documentation as requested on the vacancy announcement. ▲ For **entry-level** and some mid-level positions a copy of your college transcripts will be required.

Engineering positions require that a candidate hold a bachelor's degree in an engineering discipline. Most **entry-level** positions specify the engineering discipline being sought, and rarely require any work experience, although an internship or work experience in the environmental arena will make you more competitive. For **mid-level** and **senior-level** positions it is always best to apply for a specific job vacancy and to take the time to address the stated job elements or the knowledge, skills, and abilities outlined in the vacancy announcement on your Application for Federal Employment (SF 171). ▲ To identify current vacancies you can contact any EPA Human Resources Office for the geographic location where you wish to seek employment. Also there are a number of national periodicals you may subscribe to, which will list all vacancies. ▲ Some offices do maintain a skills bank for their engineering positions. If a current vacancy does not exist in a location you wish to work ask the Human Resources Office to place your Application for Federal Employment in the skills bank.

EPA HUMAN RESOURCES OFFICES

EPA Headquarters
401 M Street, SW
Room 3020
Washington, DC 20460
202 260-3266

Regional Offices

EPA Region 1
JFK Office Building
Boston, MA 02203
617 565-3719

EPA Region 2
26 Federal Plaza
New York, NY 10278
212 264-0016

EPA Region 3
841 Chestnut Street
8th Floor
Philadelphia, PA 19107
215 597-8922

EPA Region 4
345 Courtland Street, NE
Atlanta, GA 30365
404 347-3486

EPA Region 5
77 West Jackson Blvd
(MP-4J)
Chicago, IL 60604
312 353-2026

EPA Region 6
1445 Ross Avenue
(6M-HP) 12th Floor
Dallas, TX 75202-2733
214 655-6560

EPA Region 7
726 Minnesota Avenue
Kansas City, KS 66101
913 551-7041

EPA Region 8
999 18th Street
Suite 500
Denver, CO 80202-2405
303 293-1487

EPA Region 9
75 Hawthorne Street
San Francisco, CA 94102
415 744-1300

EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101
206 553-2959

Research and Development Laboratories

EPA
MD-29
Research Triangle Park, NC
27711
919 541-3014

EPA
26 W Martin Luther King Dr
Cincinnati, OH 45268
513 569-7812

EPA
P.O. Box 98516
Las Vegas, NV 89193-8516
702 798-2401

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Gross Ile, MI
Gulf Breeze, FLA
Narragansett, RI
Newport, OR
Warrenton, VA

Field Offices

EPA
Building 53
Box 25227 (DFC)
Denver, CO 80225
303 236-5114

EPA
2526 Plymouth Road
Ann Arbor, MI 48105
313 668-4220

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EPA recognizes the value of its employees and strives for effective Human Resources Management. The Agency is equally dedicated to achieving a representative work force. To this end, EPA's policy is to provide equal employment opportunity for everyone, to prohibit discrimination in employment because of race, color, religion, sex, age, national origin, or disability, and to promote the full realization of equal employment opportunities on the basis of merit and fitness through a continuing affirmative employment program.

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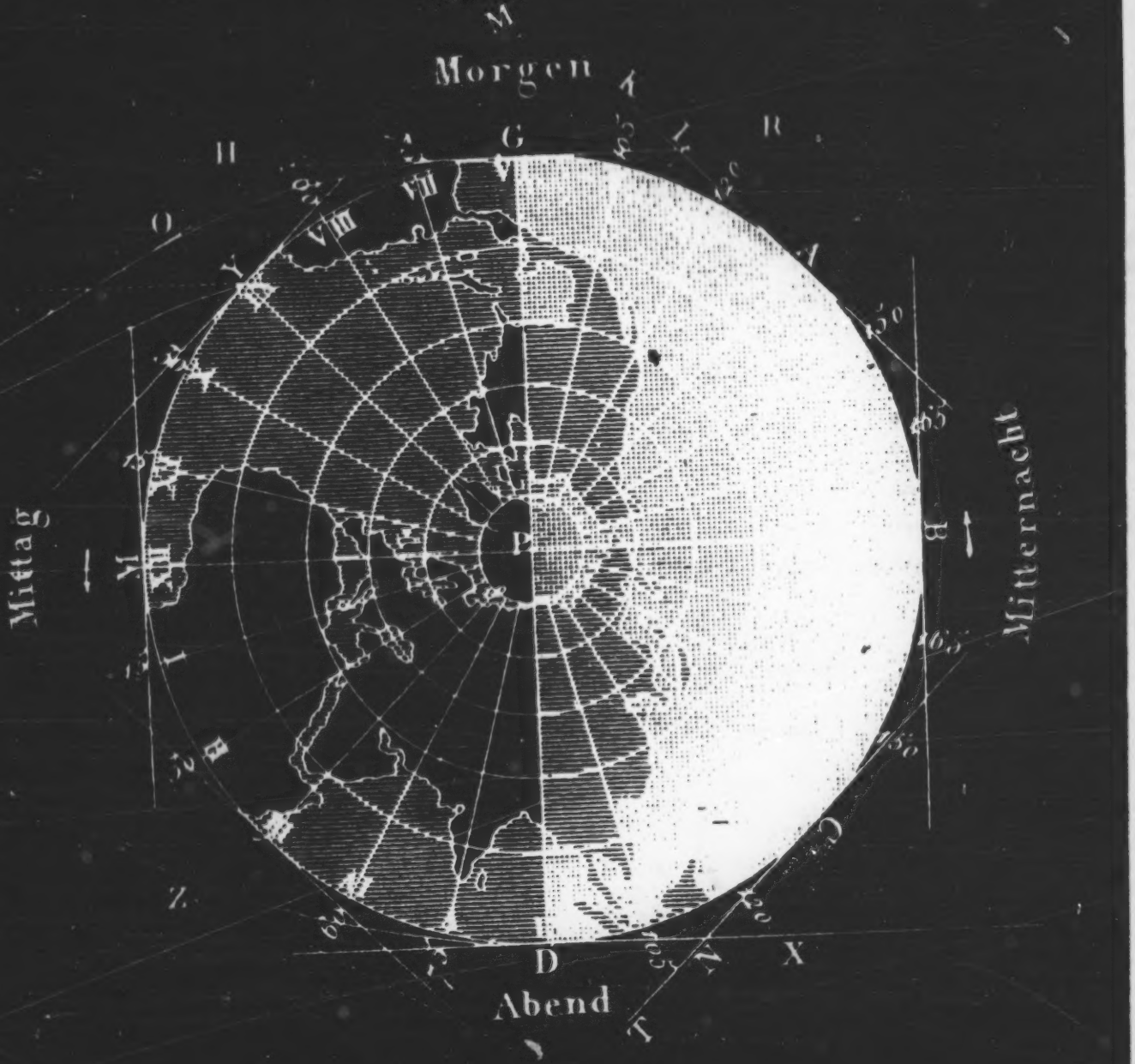
United States
Environmental Protection
Agency

National Recruitment
Program (PM 224)
Washington DC 20460

EPA 210-K92-007
August 1992



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